



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,212	01/24/2001	Yoshio Ichikawa	Q62639	2296

7590 09/25/2003
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, DC 20037-3213

EXAMINER

MICHENER, JENNIFER KOLB

ART UNIT	PAPER NUMBER
----------	--------------

1762

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,212

Applicant(s)

ICHIKAWA, YOSHIO

Examiner

Jennifer Kolb Michener

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claims 4-6 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 4-6 have not been further treated on the merits.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1 and 3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 5,688,561. Although the conflicting claims are not identical, they are not patentably distinct from each other. The second coating of the patent's claim 1 contains 2-15 ppw

Art Unit: 1762

quaternary ammonium silicate and 98-85 ppw water, overlapping the ranges of the instant application claim.

Overlapping ranges are *prima facie* evidence of obviousness. It would have been obvious to one having ordinary skill in the art to have selected the portion of the patent's range that corresponds to the claimed range. *In re Malagari*, 184 USPQ 549 (CCPA 1974).

Because the patent claim states that the second coating consists essentially of these ingredients, the concentrations will inherently total to 100 ppw.

While the patent claim does not specify the silicate content of the quaternary ammonium silicate, Examiner notes that in the patent's specification, the same general quaternary ammonium silicate formula is used as required by Applicant in claim 2. Therefore, the silicate range of the patent will inherently overlap the range required by the application.

Claim 2 of the patent teaches the use of a concrete substrate, as required by claim 3 of the instant application. While the patent does not state the concrete is "deteriorated", Examiner notes that some amount of deterioration is inherent.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1762

5. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Ichikawa (EP 0 802 172 A1) or, its US equivalent, 5,688,561.

Ichikawa teaches coating or impregnating a concrete structure with a composition (2) composed of 2-15 parts by weight of a quaternary ammonium silicate (a)' and 98-85 parts by weight water (c)', overlapping the ranges claimed by Applicant, wherein $(a)' + (c)' = 100$ (page 4, lines 44-49; abstract; page 5, lines 4 and 23).

Overlapping ranges are *prima facie* evidence of obviousness. It would have been obvious to one having ordinary skill in the art to have selected the portion of Ichikawa's range that corresponds to the claimed range. *In re Malagari*, 184 USPQ 549 (CCPA 1974).

Composition (2) is taught to increase hardness and improve soil resistance of the concrete for a long period of time (page 4, line 39), which would act to reinforce the concrete, as required by claim 1.

Regarding the limitation of claim 1 that the quaternary ammonium silicate (a)' contains 10-45% by weight silicate, Examiner notes that the quaternary ammonium silicate of composition (2) is taught by Ichikawa to be the same as the quaternary ammonium silicate of composition (1) (page 4, line 43). The quaternary ammonium silicate of composition (1) is disclosed to be that which is outlined in instant claim 2, discussed below. Therefore, it is Examiner's position that the silicate content range of Applicant's claim 1 chemical will inherently be the same as, and overlap, that of Ichikawa's.

Art Unit: 1762

Regarding claim 2, Ichikawa teaches a quaternary ammonium silicate meeting the formulaic definition of Applicant (page 3, line 18). Various alkyl groups (page 3, lines 35-37) are cited for use as the quaternary ammonium salt group for R, as required by claim 2.

Regarding claim 3, Ichikawa teaches cleaning the substrate prior to coating (page 9), indicating the presence of undesirable substances thereon. Therefore, some amount of deterioration, or decline in condition, has inherently occurred.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shimizu is cited for teaching a method of repairing a deteriorated concrete structure by applying an aqueous solution of water-soluble quaternary ammonium silicate.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Kolb Michener whose telephone number is 703-306-5462. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on 703-308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 1762

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in cursive script, appearing to read "Jennifer Kolb Michener".

Jennifer Kolb Michener
Patent Examiner
Technology Center 1700
September 15, 2003